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Patent Claims

1. A coolable layer system (1),
at least comprising
a substrate (4) and
at least one coating (7) on the substrate (4),
cooling passages (10) being used for cooling purposes,
the cooling passages (10) at least partially adjoining
the coating (7),

characterized in that

at least two cooling passages (10) cross one another,
the cooling passages (10', 10'', 10''', 10'''', 10''''') being
arranged in groups that are crosswise with respect to one
another, so that the surface that is to be cooled is
covered by the cooling passages (10', 10'', 10''', 10'''',
10''''') which cross one another.

2. The coolable layer system as claimed in claim 1,
characterized in that

the coolable layer system (1) extends in a radial
direction (16), and

in that at least one cooling passage (10) is at an angle
of 0° to the radial orientation (16).

3. The coolable layer system as claimed in claim 1 or 2,
characterized in that

the coolable layer system (1) extends in a radial
direction (16), and

in that at least one cooling passage (10) is at an angle
of 90° to the radial orientation (16).

4. The coolable layer system as claimed in claim 1, 2 or 3, characterized in that

the coolable layer system (1) extends in a radial direction (16), and
in that at least one cooling passage (10) is at an angle of greater than 0° to less than 90° to the radial orientation (16).

5. The coolable layer system as claimed in claim 1, characterized in that

at least one cooling passage (10) is arranged at least partially within the coating (7).

6. The coolable layer system as claimed in one or more of the preceding claims, characterized in that

at least one cooling passage (10) is arranged between two coatings (7, 9).

7. The coolable layer system as claimed in claim 1, characterized in that

at least one cooling passage (10) includes at least one undercut (26).